APPENDIX A

DOCUMENTATION OF DISPOSITION OF MPPEH, MD AND WASTES

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Bonet	tti Explosives, LLC
June 16, 2016	
	Invoice # 3146
Mr. George Mackanin	
American EOD Services, Inc.	
2911 Harvard Ave. Butte, Montana 59701	
	ay bombing range W912DY-10-D-0023
Mr. Mackanin,	
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APPENDIX B

ANALYTICAL RESULTS TABLES, RISK ASSESSMENT AND QA/QC EVALUATIONS

(Tables included on CDROM)

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APPENDIX C

INSTITUTIONAL ANALYSIS AND INSTITUTIONAL ANALYSIS REPORT

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APPENDIX C-1 INSTITUTIONAL ANALYSIS

C-1.1 INSTITUTIONAL ANALYSIS

This Institutional Analysis is presented along with the Institutional Analysis Report provided in Appendix C-2. Both appendices support the Remedial Investigation (RI) report developed for the former Conway Bombing and Gunnery Range (BGR), covering four Munitions Response Sites (MRSs)-R01, MRS-R02, MRS-R03, and MRS-R09. This Institutional Analysis was prepared by HydroGeoLogic, Inc. (HGL) for the U.S. Army Engineering and Support Center, Huntsville (USAESCH), and U.S. Army Corps of Engineers (USACE) Charleston, Wilmington, and Savannah Districts, under Contract W912DY-10-D-0023, Task Order 0018. The report is prepared in accordance with Engineer Pamphlet (EP) 1110-1-18 and EM-CX Interim Guidance 06-04. The purpose of the institutional analysis is to identify the government agencies that have jurisdiction over former Conway BGR MRSs R01, R02, R03, and R09 Horry County, South Carolina, specifically the four Formerly Used Defense Site (FUDS) Project Numbers identified below:

- 1) MRS-R01, Range II FUDS Project No. I04SC002501R01
- 2) MRS-R02, Range III FUDS Project No. I04SC002501R02
- 3) MRS-R03, Range IV FUDS Project No. I04SC002501R03
- 4) MRS-R09, Machine Gun/Rifle Range FUDS Project No. I04SC002501R09

This evaluation also assesses the ability of each of these agencies to protect the public from munitions and explosives of concern (MEC) hazards and munitions constituents (MC) risks. Additional information on the jurisdiction of each entity (i.e., authority and/or willingness to implement land use controls [LUCs] or Military Munitions Response Program [MMRP]-related actions) is included in the Institution Summary Results below.

Cooperation of local and state authorities is required for institutional control strategies to be successful and effective. Assessment of the government agencies associated with the former Conway BGR site included collection of the following data:

- Name of agency
- Origin of institution
- Basis of authority
- Sunset provisions
- Geographic jurisdiction
- Public safety function
- Land use control function
- Financial capability
- Desire to participate in the institutional control program
- Constraints on institutional effectiveness

C-1.2 INSTITUTION SUMMARY RESULTS

U.S. ARMY CORPS OF ENGINEERS WILMINGTON DISTRICT

Origin of institution:	The Corps of Engineers was established by the Army in 1802 as a separate branch. The Wilmington District acts as the project manager for this Formerly Used Defense Site (FUDS).
Basis of authority:	Office of USACE Geographic District in Wilmington.
Sunset provisions:	None.
Geographic jurisdiction:	North Carolina and south central Virginia
Public Safety function:	Responsible for public affairs and technical expertise.
Land Use Control function:	None.
Financial capability:	None.
Desire to participate:	Yes.
Institutional effectiveness:	Does not have control or authority over the property. May only recommend actions.

U.S. ARMY CORPS OF ENGINEERS CHARLESTON DISTRICT

Origin of institution:	The Corps of Engineers was established by the Army in 1802 as a separate branch. The Charleston District conducts the public affairs for the FUDS.
Basis of authority:	Office of USACE Geographic District in Charleston.
Sunset provisions:	None.
Geographic jurisdiction:	South Carolina
Public Safety function:	Responsible for public affairs.
Land Use Control function:	None.
Financial capability:	Primary funding source, in coordination with US Army.
Desire to participate:	Yes.
Institutional effectiveness:	Does not have control or authority over the property. May only recommend actions.

U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT

Origin of institution:	The Corps of Engineers was established by the Army in 1802 as a separate branch. The Savannah District acts as a technical resource for the Charleston District, and cooperates in the management of the FUDS program.
Basis of authority: Sunset provisions: Geographic jurisdiction:	Office of USACE Geographic District in Savannah. None. Includes Alabama, Georgia, Mississippi, Tennessee, North Carolina and South Carolina
Public Safety function: Land Use Control function: Financial capability:	Responsible for technical expertise and funding allocation.

Desire to participate:	Yes.
Institutional effectiveness:	Does not have control or authority over the property. May only
	recommend actions.

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Origin of institution:	The agency arose in 1878 with the establishment of the state's first State Board of Health. In order to best serve the people of South Carolina, DHEC was established in 1973 as the primary regulatory agency for both health and environment. The agency is the lead regulatory agency for the project site.
Basis of authority:	Environmental regulators for the State of South Carolina.
Sunset provisions:	None.
Geographic jurisdiction:	State of South Carolina.
Public Safety function:	Protect the public from environmental hazards.
Land Use Control function:	Only within applicable regulatory framework.
Financial capability:	Limited.
Desire to participate:	Yes.
Institutional effectiveness:	Must operate within the applicable regulatory framework established to address public health and the environment.

SOUTH CAROLINA DEPARTMENT OF PUBLIC SAFETY

Origin of institution:	The South Carolina Department of Public Safety was established in 1930.
Basis of authority:	South Carolina Department of Public Safety is the consolidating and coordinating entity for state troopers across South Carolina.
Sunset provisions:	None.
Geographic jurisdiction:	The State of South Carolina.
Public Safety function:	Enforce ordinances and laws developed to protect public safety.
Land Use Control function:	None.
Financial capability:	Limited.
Desire to participate:	Yes.
Institutional effectiveness:	Enforces ordinances and laws only.

HORRY COUNTY GOVERNMENT

Origin of institution:	Horry County was established in 1868.
Basis of authority:	Authority of municipal government entities based in the authority
	of the U.S. Government.
Sunset provisions:	None.
Geographic jurisdiction:	Horry County, SC.

Public Safety function:	The Horry County Government encompasses the Horry County Police Department and Horry County Sheriff's Office that enforce public safety.
Land Use Control function:	Interact with Horry County citizens regularly, receives citizen reports of munitions found, can distribute educational materials to the citizens of Horry County through their various outlets (website, police department, etc.).
Financial capability:	Yes, limited by budget capacity.
Desire to participate:	Yes.
Institutional effectiveness:	Horry County has jurisdiction and authority to establish ordinances within the geographic jurisdiction of the county that could restrict intrusive activities and/or limit receptor interaction with explosive hazards. Horry County is able to enforce LUCs (i.e., deed restrictions, fencing, etc.) once established; however, lack of participation by the public inhibits effectiveness.

HORRY COUNTY SHERIFF'S OFFICE

Origin of institution:	Horry County was established in 1868.
Basis of authority:	Sheriff's office with jurisdiction over the locations of MRS-R01,
-	MRS-R02, MRS-R03, and MRS-R09.
Sunset provisions:	None.
Geographic jurisdiction:	Horry County.
Public Safety function:	Enforce ordinances and laws developed to protect public safety.
Land Use Control function:	None.
Financial capability:	Limited.
Desire to participate:	Yes.
Institutional effectiveness:	Enforces ordinances and laws only.

PRIVATE LANDOWNERS

Origin of institution:	Individual citizens.
Basis of authority:	These citizens control the access to the land based on their ownership of the land.
Sunset provisions:	None.
Geographic jurisdiction:	Each individual parcel within Horry County.
Public Safety function:	None.
Land Use Control function:	Control access to each parcel.
Financial capability:	Limited.
Desire to participate:	Various.
Institutional effectiveness:	None.

APPENDIX C-2 INSTITUTIONAL ANALYSIS REPORT

C-2.1 INTRODUCTION

This Institutional Analysis Report supports the Remedial Investigation (RI) Report developed for this project. This Institutional Analysis Report outlines the agencies that have jurisdiction over former Conway Bombing and Gunnery Range (BGR) Munitions Response Site (MRS)-R01, MRS-R02, MRS-R03, and MRS-R09, located in Horry County, South Carolina, and outlines the ability of the agencies to enforce institutional controls (ICs). The Institutional Analysis completed to support development of this report is provided in Appendix C-1. Local and state agencies that would implement the ICs recommended for the four MRSs: (1) MRS-R01, Range II (MRS-R01); (2) MRS-R02, Range III (MRS-R02); (3) MRS-R03, Range IV (MRS-R03); and (4) MRS-R09, Machine Gun/Rifle Range (MRS-R09). Land use controls that may be included in alternatives for these MRSs include warning signs on roadways and educational programs.

The key to the successful implementation of land use controls (LUCs) or other ICs is landowner participation, since the MRSs are privately owned.

C-2.2 METHODOLOGY

The methodology used to evaluate potential ICs focuses on reducing potential hazards from munitions and explosives of concern (MEC) and minimizing risks for exposure to munitions constituent (MC) risks at the MRSs. The evaluation included the review of the government institutions and non-government entities that have some form of jurisdiction or ownership of the properties within the site (Appendix C-1). Once jurisdictions and ownership were determined, the information gathered was reviewed based on the following criteria:

- Based on knowledge of the area and discussions with the U.S. Army Corps of Engineers (USACE), including during the technical project planning (TPP) process for this project, a list of stakeholders and jurisdictional organizations was outlined.
- The primary institutions having jurisdiction over the four MRSs addressed under the RI were reviewed. The governmental agency exercising authority over the land containing the MRSs is the South Carolina Department of Health and Environmental Control (SCDHEC). Various entities were identified with either jurisdiction and/or capability and willingness to assert control over the land containing potential MEC hazards (if identified).

C-2.3 SCOPE OF EFFORT

This Institutional Analysis Report was developed in accordance with USACE guidance. This analysis supports the development of strategies that may require the cooperation of local and state authorities. The local, state, and federal government agencies with jurisdiction over the

former Conway BGR have been assessed with regard to their concerns and authority to exercise ICs over the property. This report outlines potential control strategies and provides recommendations for specific control strategies.

C-2.4 AGENCY SELECTION CRITERIA

A list of agencies, individuals and organizations were selected based on relevance to the IC process. A set of criteria was used in the selection of agencies. These organizations and agencies should have the following attributes to be selected:

- Jurisdiction as a public agency.
- Primary concern for ordnance hazards because of ownership or use.
- Technical capability for access control and/or behavior modification strategies.
- A variety of sources available that would provide complete communication coverage and allow contact with affected parties. For example, print and electronic communication mechanisms.
- Capability to continue the same or use a different strategy for implementing ICs at a later date.
- Authority to assist in implementation of IC.
- Responsibility for land-use control and/or public safety.
- Capacity to conduct public information and education activities.
- The ability and willingness to assist.

C-2.5 ACCEPTANCE OF JOINT RESPONSIBILITIES

Relationships with the former Conway BGR stakeholders have been established through TPP meetings and public meetings with the local community. Research during the ROE solicitation process indicates that of the 450 separate parcels identified within the four MRSs, there are 315 unique landowners, with some landowners holding multiple parcels. Of the 315 landowners, the majority are single family residences, with one unique owner for each parcel. Other types of landowners include: 28 commercial businesses, eight golf course management companies, eight property homeowner associations, 21 land developers, and five churches. ICs (if recommended) will provide a mechanism to reduce the risk of exposure to MEC or MC.

C-2.6 TECHNICAL CAPABILITIES

The South Carolina Department of Public Safety and the Horry County Sheriff's Offices (specifically the Horry County Bomb Squad) have the capability to provide emergency response support for the four MRSs, if necessary. The counties and municipalities also have the capabilities to apply planning and zoning restrictions within the MRSs property boundary.

C-2.7 INTERGOVERNMENTAL RELATIONSHIPS

Both USACE and SCDHEC have cooperated during the RI conducted for these MRSs. The government will continue to recognize the safety concerns identified (if any) and will follow the recommendations made by the TPP team and approved by the USACE Huntsville, Wilmington, and Savannah Districts. These recommendations may include instituting LUCs. Landowners have also participated in TPP for the RI. Communication has been well established between the government and landowners.

C-2.8 ORGANIZATIONAL STABILITY

SCDHEC and the USACE are government entities and are expected to be the most stable type of organization. Ownership of the privately owned land changes frequently.

C-2.9 FUNDING SOURCE RECOMMENDED FOR DETAILED ANALYSIS

If eventually recommended, LUCs would provide cost effective ways to ensure and maintain the safety of the public and provide awareness of potential hazards. The USACE Savannah District will provide funding for LUCs and will be the main source of funding for the access controls and printed media.

C-2.10 CONCLUSIONS

The USACE is the government agency responsible for implementing LUCs at the site. The Horry County Sheriff's Office is capable of providing emergency response support for the MRSs, if necessary. Additionally, good communication throughout the TPP process has been established with landowners. The key to successful implementation of LUCs, or other ICs, is landowner participation. Landowner permission is required to access the MRSs or to modify property deeds. Implementation of LUCs at the MRSs will be assessed in accordance with landowners' use of the site and would be highly implementable if exercised by government agencies.

Preliminary LUC strategies that may be necessary will be based on discussions with USACE and the various landowners and based on overall knowledge of the site and conditions. The final recommendation may involve educational awareness and continued remedies prior to MRS closure as the appropriate method for reducing MEC risks. Any LUC strategies that may be recommended would be considered in coordination with other potential response action alternatives that will be developed in a feasibility study.

APPENDIX D

DEMOLITION ACTIVITY SUMMATION TABLES

No MEC items requiring demolition were recovered during the intrusive investigation at the Conway Bombing and Gunnery Range.